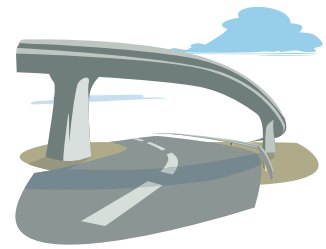




The Arkansas Road Centerline File Program

http://www.gis.state.ar.us/AGIO/ACF_program.html



Issue:

The state lacks a single statewide centerline (road) file that enables locating people and places. Presently, the best available statewide centerline file that exists in the public domain was created by the United States Bureau of the Census. There are often discrepancies in the way map data is formatted and maintained, which can cause problems when data is shared.

Solution:

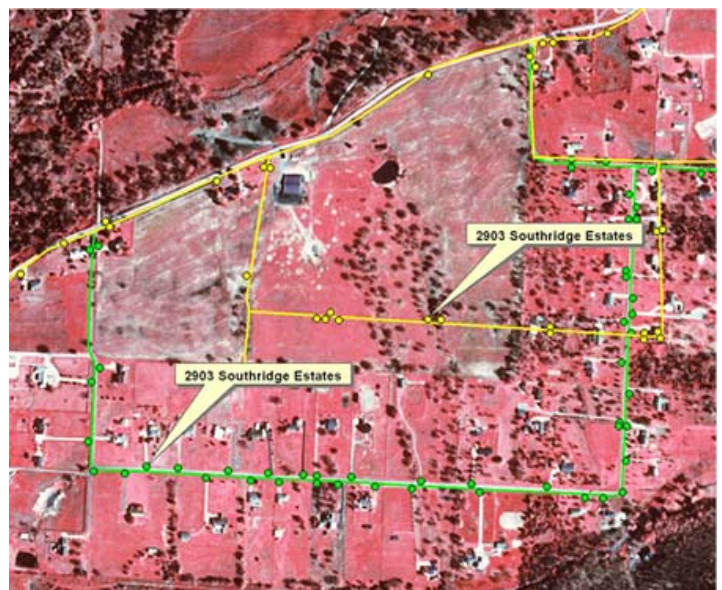
The Arkansas Centerline File (ACF) Program was developed, which intends to make centerline files more uniform and horizontally accurate. The program is designed to comply with the ACF Standard, specifically compiling a statewide centerline file with a horizontal accuracy better than ten meters and geocodable attributes. All centerline data created through this program shall reside in the public domain. Through this program, the AGIO will ensure the best available local data will be accessible to everyone in all levels of government and the private sector. The AGIO will also implement a methodology for the data to be maintained by the locals, ensuring data quality throughout time.

“One of the things that our state is in desperate need of is a road database that helps us find people and places during an emergency. We have this in a few counties with E-911. What we don’t have is one single road database for the entire state.”

Shelby Johnson, Arkansas Geographic Information Coordinator

Program Overview:

The Arkansas Centerline File (ACF) program was developed by the Arkansas State Land Information Board (ASLIB) in order to support the legislative initiatives to establish the Arkansas Spatial Data Infrastructure (Arkansas Code 15-21-504). This program and its related standards are intended to benefit the Arkansas Geographic Information Systems (GIS) user communities in areas such as E-911 applications, routing services, location-based services, homeland security, and various government entities. The ACF standards were promulgated in September 2002 and became an official state rule and regulation.



The problem is illustrated above where there is a 2000 ft. error between the US Census map location and the City of Ft. Smith map location of house #2903. The only statewide dataset currently in the public domain is the Census line seen in yellow. The local Ft. Smith E-911 data (in green) is much more accurate and has only been made available to state, federal, and private entities as a result of the ACF program. This gives agencies like Arkansas Department of Emergency Management a more accurate map for first responders to locate disasters.

Participants:

Entities that have participated in the ACF Program include: Arkansas Assessment Coordination Department, Arkansas Highway and Transportation Department, Arkansas One Call, Carter and Burgess, Center for Advanced Spatial Technologies, Central Arkansas Planning and Development District, Conway Corporation, ESRI, First Electric Cooperative, North Arkansas Electric Cooperative, Pixxures, United States Bureau of the Census, University of Arkansas at Fort Smith, Western Arkansas Planning and Development District.

Resources:

The AGIO is providing cities and counties with fundamental resources necessary for quality and efficient road mapping development and maintenance. Some of the resources and services the AGIO provides: aerial photography from 2000-2002, software and hardware selection, template layer databases, training, data reformatting, technical support, coordination to reduce duplication of efforts, contractor review, and GIS education.

ACF: http://www.gis.state.ar.us/AGIO/ACF_program.asp

ADOP: <http://www.gis.state.ar.us/AGIO/adop.htm>

CAMP: <http://www.gis.state.ar.us/AGIO/CAMP.asp>



Cabot, Arkansas in Lonoke County

AGIO programs working in concert: by utilizing ADOP imagery with county assessor data, the ACF comes to life. The AGIO helps cities and counties develop their road mapping through coordination, intrastate partnerships and technical support.

Success Story: Conway County

Conway County realized that it needed a centerline (road) database in order to aid E-911, utilities, county road management, future voting districts, and overall, a growing county. As the community grows, so do the amount of roads, which causes data to be either inaccurate or non-existent. In order to develop an accurate road database, Conway County provided a contractor with the Arkansas Centerline File and Global Positioning System Standards, which saved the county money.

Conway County collaborated with the University of Arkansas Community College at Morrilton, Morrilton High School EAST Participants, and Arkansas Tech University's Emergency Administration and Management department in order to develop different spatial layers for the county, including such attributes as fire hydrants, sewer systems, etc. The county has also found the downloadable data in GeoStor to be useful.

Conway County now has an accurate centerline database, but is still working on additional GIS data. More and more community members and organizations continue to contribute ideas and resources to the project.

"I think that our county is a good example of the fact that GIS can be within reach of small counties with limited budgets. I would recommend this centerline project to other counties/cities. This is the information age; GIS formulates your information into something you can see and use. GIS is not something for the future – we use it everyday."

- Misty Sutton, Conway County E-911 Coordinator

For more information, please visit http://www.gis.state.ar.us/AGIO/ACF_program.asp or call 501-682-2767.

